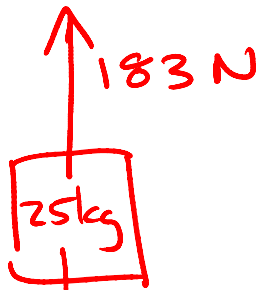


Example #2. A 25.0 kg mass is pulled upward vertically by a force of 183 N.
Find the acceleration of the mass.



$$F_g = 25(9.8) \\ = 245 \text{ N}$$

F_{net} , a are both down

$$F_{\text{net}} = 245 - 183 \\ = 62 \text{ N down}$$

$$F_{\text{net}} = ma$$

$$62 = 25a$$

$$\boxed{a = 2.5 \text{ m/s}^2}$$